

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-118. (*Cancelled*).

119. (*Previously presented*) A recombinant or synthetic polynucleotide encoding a protein that comprises an amino acid sequence at least 60% identical to SEQ. ID NO:118 when the entire sequence of said protein is optimally aligned with SEQ ID NO:118, wherein said protein contains each of the following structures in the order shown:

amino terminus;

either: Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>8</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp  
(SEQ. ID NO:16),

or: Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>9</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp  
(SEQ. ID NO:17);

X<sub>3</sub>-Arg-X<sub>2</sub>-Pro-Lys-X<sub>3</sub> (SEQ. ID NO:139)

X-Arg-X-Ile-X (SEQ. ID NO:143)

X<sub>4</sub>-Phe-X<sub>3</sub>-Asp-X<sub>4</sub>-Tyr-Asp-X<sub>2</sub> (SEQ. ID NO:144)

Tyr-X<sub>4</sub>-Gly-X<sub>2</sub>-Gln-Gly-X<sub>3</sub>-Ser-X<sub>8</sub> (SEQ. ID NO:146)

X<sub>6</sub>-Asp-Asp-X-Leu-X<sub>3</sub> (SEQ. ID NO:147);

carboxy terminus;

with the proviso that the polynucleotide does not contain the consecutive nucleotides 1-2009 of SEQ ID NO:124;

wherein R<sub>1</sub> is Leu or Ile; R<sub>2</sub> is Gln or Arg; R<sub>3</sub> is Phe or Tyr; R<sub>4</sub> is Lys or His, X represents an unspecified amino acid and X<sub>n</sub> represents the number n of consecutive unspecified amino acids; and wherein the encoded protein has telomerase catalytic activity when complexed with a telomerase RNA component.

120-128. (*Cancelled*).

129. (*Previously presented*) An isolated, synthetic, or recombinant polynucleotide encoding a protein that comprises an amino acid sequence at least 80% identical to SEQ. ID NO:118 when the entire sequence of said protein is optimally aligned with SEQ. ID NO:118, wherein said protein contains each of the following structures in the order shown:

amino terminus;

either: Trp-R<sub>1</sub>-X<sub>2</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>8</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp  
(SEQ. ID NO:16),

or: Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>9</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp  
(SEQ. ID NO:17);

X<sub>3</sub>-Arg-X<sub>2</sub>-Pro-Lys-X<sub>3</sub> (SEQ. ID NO:139);

X-Arg-X-Ile-X (SEQ. ID NO:143);

X<sub>4</sub>-Phe-X<sub>3</sub>-Asp-X<sub>4</sub>-Tyr-Asp-X<sub>2</sub> (SEQ. ID NO:144);

Tyr-X<sub>4</sub>-Gly-X<sub>2</sub>-Gln-Gly-X<sub>3</sub>-Ser-X<sub>8</sub> (SEQ. ID NO:146);

X<sub>6</sub>Asp-Asp-X-Leu-X<sub>3</sub> (SEQ. ID NO:147);

carboxy terminus;

wherein R<sub>1</sub> is Leu or Ile, R<sub>2</sub> is Gln or Arg, R<sub>3</sub> is Phe or Tyr, R<sub>4</sub> is Lys or His, X represents an unspecified amino acid, and X<sub>n</sub> represents the number n of consecutive unspecified amino acids;

and wherein the protein has telomerase catalytic activity when complexed with a telomerase RNA component.

130. (*Previously presented*) An isolated, synthetic, or recombinant polynucleotide ~~according to claim 129~~ encoding a protein comprising an amino acid sequence at least 95% identical to SEQ. ID NO:118, wherein said protein contains each of the following structures in the order shown:

amino terminus;

either: Trp-R<sub>1</sub>-X<sub>2</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>8</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp  
(SEQ. ID NO:16),

or: Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>9</sub> R<sub>3</sub>-R<sub>3</sub> Arg-R<sub>4</sub>-X<sub>2</sub>-Trp  
(SEQ. ID NO:17);

X<sub>3</sub>-Arg-X<sub>2</sub>-Pro-Lys-X<sub>3</sub> (SEQ. ID NO:139);

X-Arg-X-Ile-X (SEQ. ID NO:143);

X<sub>4</sub>-Phe-X<sub>3</sub>-Asp-X<sub>4</sub>-Tyr-Asp-X<sub>2</sub> (SEQ. ID NO:144);

Tyr-X<sub>4</sub>-Gly-X<sub>2</sub>-Gln-Gly-X<sub>3</sub>-Ser-X<sub>8</sub> (SEQ. ID NO:146);

X<sub>6</sub>Asp-Asp-X-Leu-X<sub>3</sub> (SEQ. ID NO:147);

carboxy terminus;

wherein R<sub>1</sub> is Leu or Ile, R<sub>2</sub> is Gln or Arg, R<sub>3</sub> is Phe or Tyr, R<sub>4</sub> is Lys or His, X represents  
an unspecified amino acid, and X<sub>n</sub> represents the number n of consecutive unspecified amino  
acids;

and wherein the protein has telomerase catalytic activity when complexed with a  
telomerase RNA component.

131. (Cancelled)